

IN THE CLAIMS

Please cancel claims 6, 10-11, 14, and 25 and amend the claims as follows:

1. (Currently Amended) A golf ball comprising a core and a cover, wherein the core comprises a solution blended polymeric composite comprising at least one polybutadiene two polybutadienes and a plurality of nanoparticles having an average size of less than about 100 nm.
2. (Currently Amended) The golf ball of claim 1, wherein the at least one polybutadiene comprises polymeric composite has less than about 5 percent vinyl-isomer content in the polybutadiene.
3. (Currently Amended) The golf ball of claim 2, wherein the at least one polybutadiene polymeric composite has less than about 3 percent vinyl-isomer content in the polybutadiene.
4. (Currently Amended) The golf ball of claim 1, wherein at least one polybutadiene the polymeric composite has at least about 20 percent trans-isomer content in the polybutadiene.
5. (Currently Amended) The golf ball of claim 1, wherein the at least one polybutadiene has a molecular weight of at least about 200,000 and a polydispersity of less than about 3.
6. (Canceled) The golf ball of claim 1, wherein the polymeric composite comprises a plurality of nanoparticles having an average size of less than about 100 nm.
7. (Currently Amended) The golf ball of ~~claim 6~~ claim 1, wherein the nanoparticles comprise silica.
8. (Currently Amended) The golf ball of claim 1, wherein the golf ball further comprises an intermediate layer disposed between the core and the cover comprises at least two layers and the polymeric composite is disposed in at least one of the two layers.
9. (Currently Amended) The golf ball of claim 1, wherein the core comprises at least

two layers polymeric composite is disposed in a core of the golf ball.

10. (Canceled) The golf ball of claim 1, wherein the polymeric composite is disposed in a cover layer of the golf ball.
11. (Canceled) The golf ball of claim 1, wherein the polymeric composite is disposed in an elastomeric thread that forms a layer in the golf ball.
12. (Currently Amended) The golf ball of claim 1, wherein the polymeric composite further comprises at least one polyisoprene polymer.
13. (Original) The golf ball of claim 12, wherein the at least one polyisoprene polymer has a trans-isomer content of at least about 10 percent.
14. (Canceled) The golf ball of claim 12, wherein the polymeric composite comprises a blend of the at least one polyisoprene polymer and at least one polybutadiene polymer.
15. (Currently Amended) The golf ball of claim 1, wherein the at least two polybutadienes comprise polymeric composite comprises a blend of at least a first polymer polybutadiene having a first molecular weight and a second polymer polybutadiene having a second molecular weight, wherein the first and second molecular weights differ.
16. (Original) The golf ball of claim 15, wherein the first and second molecular weights differ by at least about 100,000.
17. (Original) The golf ball of claim 1, wherein the effective modulus of the crosslinked polymeric composite is less than about 110 MPa.
18. (Original) The golf ball of claim 1, wherein the coefficient of restitution of the polymeric composite is greater than about 0.8.
19. (Original) The golf ball of claim 1, wherein the flexural modulus of an uncrosslinked compound comprising the polymeric composite is greater than about 3.5 MPa.

20. (Original) A method of preparing the golf ball of claim 1 which comprises:  
combining a first polybutadiene cement having at least about 50 percent trans-isomer content and a second polybutadiene cement having at least about 90 percent cis-isomer content to form a first mixture;  
evaporating at least substantially all of the solvent from the first mixture to obtain a polymeric composite;  
combining the polymeric composite with at least one crosslinking agent to obtain a second mixture; and forming the second mixture into at least a portion of the golf ball.
21. (Original) The method of claim 20, wherein the forming comprises injection molding.
22. (Original) The method of claim 20, wherein the first polybutadiene cement has been polymerized in the presence of a sufficient amount of cobalt-catalyst to increase the trans-isomer content of the polybutadiene.
23. (Original) The method of claim 20, wherein at least one of the polybutadiene cements has been polymerized in the presence of a sufficient amount of nickel or neodymium catalyst to increase the molecular weight of the cement.
24. (Original) A golf ball comprising:  
a polymeric composite which comprises:  
a first polybutadiene having at least 90 percent cis-isomer;  
a second polybutadiene having at least 70 percent trans-isomer; and  
a plurality of nanoparticles, wherein the polymeric composite comprises a polybutadiene has less than about 5 percent vinyl-isomer content.
25. (Canceled) A golf ball formed from a crosslinked polymeric composite wherein the flexural modulus of the uncrosslinked polymeric composite is greater than about 3.5 MPa.

Please add the following new claims:

26. (New) A golf ball comprising a core and a cover, wherein the core comprises a

solution blended polymeric composite comprising a first polybutadiene, a second polybutadiene, and a plurality of nanoparticles having an average size of less than about 100 nm, wherein the core has a coefficient of restitution of greater than about 0.8.

27. (New) The golf ball of claim 26, wherein the plurality of nanoparticles have an average size of about 1 nm to about 50 nm.

28. (New) The golf ball of claim 26, wherein the first polybutadiene has at least about 50 percent trans-isomer content and wherein the second polybutadiene has at least about 90 percent cis-isomer content.